

ARRANGEMENT FOR SWITCHING INFINIBAND
PACKETS USING SWITCHING TAG AT START OF
PACKET

ABSTRACT OF THE DISCLOSURE

A network manager, configuring for detecting network nodes and configuring network switches, determines addressing field lengths to be used for addressing the network nodes and switching data packets between the network nodes based on the number of detected network nodes. The network manager detects the network nodes by exploring the network according to prescribed
5 explorer procedures. The network manager selects a size of address fields to be used for switching data packets traversing the network, based on the number of detected network nodes. The network manager configures each network switch within the network to switch the data packets based on a switching tag having the selected size and positioned at the start of the packet. Hence, each network switch is able to generate forwarding decisions based on the switching tag at the beginning of each
10 received data packet. The switching tag is distinct from, and substantially smaller than, the existing destination address field. Hence, switching complexity can be minimized for relatively small networks having minimal addressing requirements, reducing latency and simplifying forwarding decisions within the network switches.